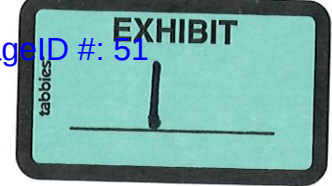


EXHIBIT 1

**NEELY & CALLAGHAN***Lawyers*

159 SUMMERS STREET

CHARLESTON, WEST VIRGINIA 25301-2134

304-343-6500

FAX 304-343-6528

MICHAEL O. CALLAGHAN

20 November 2019***Via Certified Mail (No. 7019112000016967
8116)***

The President, Donald J. Trump
 The White House
 1600 Pennsylvania Avenue NW
 Washington, DC 20500

***Via Registered Mail (No. RR600998526US)
and Certified Mail (No. 7019112000016967
8277)***

Union Carbide Corporation
 c/o Site Manager, Union Carbide Technology
 Park
 3200/3300 Kanawha Turnpike
 P.O. Box 8361
 South Charleston, West Virginia 25303

***Via Registered Mail (No. RR600998530US)
and Certified Mail (No. 7019112000016967
8260)***

Dow Chemical Corporation
 c/o Site Manager, Union Carbide Technology
 Park
 437 MacCorkle Ave S.W.
 South Charleston, WV 25303

***Via Registered Mail (No. RR600998543US)
and Certified Mail (No. 7019112000016967
8253)***

Union Carbide Corporation
 c/o CT Corporation System, Registered Agent
 1627 Quarrier Street
 Charleston, WV 25311-2124

***Via Registered Mail (No. RR600998557US)
and Certified Mail (No. 7019112000016967
(8246)***

Dow Chemical Corporation
 c/o CT Corporation System, Registered Agent
 1627 Quarrier Street
 Charleston, WV, 25311-2124

***Via Registered Mail (No. RR600998565US)
and Certified Mail (No. 7019112000016967
8291)***

Union Carbide Corporation
 c/o Richard Wells, CEO and President
 1254 Enclave Pkwy
 Houston, TX 77077

***Via Registered Mail (No. RR600998565US)
and Certified Mail (No. 7019112000016967
8284)***

Dow Chemical Corporation
 c/o James Fitterling, President
 2030 Dow Center
 Midland, MI 48674

***Via Registered Mail (No. RR600998574US)
and Certified Mail (No. 7018113000023182
9574)***

Andrew Wheeler

***Via Registered Mail (No. RR600998588US)
and Certified Mail (No. 7018113000023182
9598)***

Austin Caperton

UCC Facilities

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Acting Administrator
U.S. Environmental Protection Agency / Mail
Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Cabinet Secretary, West Virginia Department
of Environmental Protection
601 57th Street SE
Charleston, WV 25304

Re: UCC Technology Park, UCC Filmont Landfill, and UCC Rail Yard, South Charleston, WV
Supplemental Notice of Violation and Conditional Intent to File a Civil Action, Pursuant to 42 U.S.C. § 6972(a)(1)(A);
Supplemental Notice of Endangerment and Conditional Intent to File a Civil Action, Pursuant to 42 U.S.C. § 6972(a)(1)(B);
Notice of Violation and Conditional Intent to File a Civil Action, Pursuant to 42 U.S.C. § 9659(d)(1); and
Notice of Violation and Conditional Intent to File a Civil Action, Pursuant to 33 U.S.C. § 1365(b).

To all Addressees:

This firm represents The Courtland Company, Inc., a West Virginia Business corporation, (hereinafter: "Courtland"), owner of 13.767 acres of land on Davis Creek in the City of South Charleston, Kanawha County, West Virginia, which real property is described as real estate purchased by Courtland by deed from The Charleston National Bank as Trustee under the Will of Lulu B. Dickenson Owens, Deceased, Kanawha County Recorder's Office, Book 1932 Page 440 ("the Courtland Property"). This letter, which is sent on behalf of Courtland and at its direction, will supplement our notice letter dated August 3, 2018. This letter is both a Notice of Violation pursuant to 42 U.S.C. § 6972(b)(1)(A), consistent with the requirements set forth in 40 CFR Part 254, a Notice of Endangerment pursuant to 42 U.S.C. § 6972(b)(2)(A), a Notice of Violation and Conditional Intent to File a Civil Action, Pursuant to 42 U.S.C. § 9659(d)(1), and a Notice of Violation and Conditional Intent to File Suit, pursuant to 33 U.S.C. § 1365(b). Pursuant to 42 U.S.C. § 6972(a)(1)(A), 42 U.S.C. § 6972(a)(1)(B), 42 U.S.C. § 9659(a)(1), and 33 U.S.C. § 1365(a)(1), it is our conditional intent to file a civil action on behalf of Courtland and against Union Carbide Corporation ("UCC") and Dow Chemical Corporation ("Dow") in connection with the violations and conditions set forth herein. Because claims brought by Courtland under 42 U.S.C. § 6972(a)(1)(A) and 42 U.S.C. § 6972(a)(1)(B), will both be actions respecting a violation subchapter III of the Resource Conservation and Recovery Act of 1976, as amended (hereinafter: "RCRA"), 42 U.S.C. §§ 6921-6939g, you may expect that such civil action will be commenced promptly after you receive this notice. Please note that the name, address, and telephone number of the undersigned attorney, who provides this notice on behalf of Courtland, are set forth at the top of this page.

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I. STATUTORY SOLID WASTES AND STATUTORY HAZARDOUS WASTES UNDER RCRA

This matter concerns the disposal into the environment at and beyond the boundaries of the UCC Facilities (defined below) originating from, and the presence within environmental media located on the Courtland property near and adjacent to the UCC Facilities and within the surrounding soils and groundwater, of wastes which meet the *statutory* definition of both “solid waste” and “hazardous waste” under RCRA, and the continuing migration of such wastes, through environmental media, to the soils and groundwater of other properties, including the Courtland Property. This matter also concerns the imminent and substantial endangerments to both human health and the environment that is and may be presented by reason of the existence at, and the continuing migration towards, the Courtland Property and other properties of those solid and hazardous wastes. The presence and migration of such solid and hazardous wastes in the environment is due to the acts and omissions of the responsible persons to whom this letter is directed (*i.e.*, all addressees of this notice letter other than the U.S. Environmental Protection Agency (“USEPA”) and WV Department of Environmental Protection (WVDEP) persons and entities), who include past or present waste generators, past or present waste transporters, and/or past or present owner and/or operator of a treatment, storage, or disposal facility, who have contributed or who are contributing to the past or present handling, storage, treatment, transportation, or disposal of solid or hazardous wastes which may present an imminent and substantial endangerment to health or the environment.

RCRA is the public law that creates the framework for the proper management of both hazardous and non-hazardous solid wastes so as to assure adequate protection of Public Health and the Environment. To accomplish these broad goals with respect to land pollution, Congress included within RCRA both regulatory and remedial provisions. RCRA § 1004(27), 42 U.S.C. § 6903(27), broadly defines “solid waste” as follows:

The term “solid waste” means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 1342 of title 33, or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923) [42 U.S.C. 2011 *et seq.*].

42 U.S.C. § 6903(27). RCRA § 1004(5), 42 U.S.C. § 6903(5), sets forth the statutory definition of “hazardous waste,” which it expressly defines as a subset of the congressionally-defined term “solid waste”

The term “hazardous waste” means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may—

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(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

42 U.S.C. § 6903(5). Congress has never granted authority, either in RCRA or in any other federal legislation, to any person or governmental agency to modify, limit or restrict the statutory definition of “hazardous waste” set forth in RCRA § 1004(5). The chemical substances described herein, including Acetone, 2-Butanone, Di-n-butyl phthalate, 1,4-Dioxane, Arsenic, Barium, Cadmium, Chromium, Lead, Selenium and Mercury, which have been released to the environment at and from the UCC Facilities and which have become present or which threaten to become present on the Courtland Property are both “solid wastes” and “hazardous wastes” within the meaning of RCRA §§ 1004(27) and (5), respectively, 42 U.S.C. § 6903(27) and (5).

II. “LISTED AND IDENTIFIED” HAZARDOUS WASTES UNDER SUBCHAPTER III OF RCRA

This matter also concerns the presence, within environmental media at the Courtland Property and the surrounding environment of wastes released into the environment from the UCC Facilities, which wastes meet the *regulatory* definition of “hazardous waste” under RCRA. In addition to providing broad statutory definitions of both solid waste and hazardous waste for all purposes of RCRA, Congress in RCRA § 3001 directed the Administrator of U.S. EPA to identify, by way of listing or through the development of specific descriptions of waste characteristics, specific “hazardous wastes” as defined by RCRA § 1004(5) which the Administrator determined should be subject to the Congressionally-created strict regulatory program of RCRA Subchapter III (sometimes also known as RCRA Subtitle C -- *i.e.*, RCRA §§ 3001-3064, 42 U.S.C. §§ 6901-6964). *See* 42 U.S.C. § 6921(a). Those hazardous wastes to be “listed or identified” pursuant to formally promulgated, notice and comment federal regulations issued under 42 U.S.C. § 6921, as a subset of the hazardous wastes defined in 42 U.S.C. § 6903(5), are the “hazardous wastes listed or identified by the Administrator” that are subject to the very strict RCRA Subchapter III regulatory program--a national, comprehensive “cradle to grave” “hazardous waste management”¹ system regulating, *inter alia*, the manner in which such wastes can be treated, stored, and disposed of. *See* 42 U.S.C. §§ 6921-6934. *Chi v. EDF*, 511 U.S. 328 (1994) (“RCRA is a comprehensive environmental statute that empowers EPA to regulate hazardous wastes from cradle to grave, in accordance with the rigorous safeguards and waste management procedures of Subtitle C, 42 U.S.C. §§ 6921-6934). Moreover, pursuant to RCRA § 3006(b), 42 U.S.C. § 6926(b), a state may develop its own hazardous waste program (*i.e.*, by the enactment of appropriate statutes, creation

¹ RCRA § 1004(7) defines the term “hazardous waste management”:

The term “hazardous waste management” means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

42 U.S.C § 1004(7).

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and funding of necessary governmental infrastructure and promulgation of necessary implementing, enforceable administrative regulations). Upon USEPA approval of such a state hazardous waste management program, the state, pursuant to express Congressional authorization, may operate that program “in lieu of the federal program within such state,” subject to certain federal requirements, the most notable of which is that the state program must be equivalent to and consistent with the federal RCRA Subtitle C hazardous waste management program. *See* 42 U.S.C. § 6926(b). West Virginia’s hazardous waste management program, which is substantially similar to the federal program, has been formally approved by the Administrator of U.S. EPA and, accordingly, operates “in lieu of” the federal RCRA program within the State of West Virginia. *See* 51 FR 17739B (May 15, 1986); 65 FR 29973 (May 10, 2000); 78 FR 70225 (November 25, 2013). The federal regulations pertaining to the listing and identification of hazardous wastes, set forth in 40 C.F.R. Part 261, are incorporated by reference into §33-20-3 of the West Virginia Code of State Rules (“WV CSR”), with minor modifications that are not relevant herein.

As discussed below, with respect to their presence at the UCC Facilities and their migration, through environmental media, from the UCC Facilities (defined below), the substances Acetone, 2-Butanone (a.k.a. methyl ethyl ketone), Di-n-butyl phthalate and 1,4-Dioxane are each a “hazardous wastes listed or identified by the Administrator” within the meaning of that phrase as used in Subchapter III of RCRA and a “hazardous waste” for RCRA Subtitle C purposes as defined by 40 C.F.R. § 261.3(a) and under Title 33, Series 20, of the WV CSR.

This matter also concerns the violation of one or more permits, standards, regulations, conditions, requirements, prohibitions, or orders which have become effective pursuant to RCRA. In particular, this matter concerns UCC’s apparent failure timely to provide the notice required by 42 U.S.C. § 6930(a) with respect to the Filmont Landfill (also known as “Fillmont Landfill” and hereafter referred to as the “Filmont Landfill”), which notice was required to be submitted on August 19, 1980. This matter also concerns the management and disposal of hazardous wastes which have been “identified or listed” under Subchapter III of RCRA and under Title 33, Series 20, of the West Virginia Code of State Rules (*i.e.*, RCRA *regulatory* hazardous wastes), in violation of RCRA §§ 3004 and 3008, 42 U.S.C. §§ 6924 and 6928, and W.V. Code § 22-18-8(a) at other than a permitted facility. Additionally, this matter concerns UCC’s apparent failure timely to provide the notice required by 42 U.S.C. § 9603(c) with respect to the Filmont Landfill, which notice was required to be submitted “[w]ithin one hundred and eighty days after December 11, 1980.” Finally, with respect to the Filmont Landfill, which is mounded on the edge of the Davis Creek and is apparently hydrologically connected to that creek, this matter concerns apparent violations of 33 U.S.C. §§ 1311, 1342, and 1344 with respect to unpermitted pollutant discharges from a point source to Water of the United States and the unpermitted placement of dredge or fill material into navigable waters of the United States.

III. UCC FACILITIES

Three (3) UCC facilities are adjacent to the Courtland Property, all of which have documented releases of wastes to the environment. These three facilities are the Tech Center, the Rail Yard, and the Filmont Landfill (collectively, “UCC Facilities” or “UCC Facility”), including

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all “facilities” as defined by CERCLA § 101(9), 42 U.S.C. § 9601(9) “. . . (A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.” all of the “facilities” at the UCC Facilities. See Figure 1.

(a) UCC Tech Center:

Beginning no later than 1947 and continuing to 1974, UCC, now a wholly owned subsidiary of Dow,² purchased individual parcels of land, located east of Davis Creek and south-southeast of the Chesapeake and Ohio Railway line in South Charleston, West Virginia, from the Kanawha Land Company, Westvaco Chemical Company, a dairy farm, and other parties. and began to conduct operations on those lands. These lands, which are sometimes collectively known as the “West Virginia Regional Technology Park,” the “South Charleston Technology Park,” or simply the “Technology Park,” are collectively referred to herein as “the UCC Tech Center.” Prior to UCC's ownership, the UCC Tech Center property was undeveloped with the exception of several brine wells which were located on the former Westvaco Chemical Company parcel and were used to extract brine for the manufacture of chlorine bleach.

The UCC Tech Center consists of approximately 574 acres (Figure 1). The land use for the area surrounding the UCC Tech Center is primarily industrial and commercial to the north and residential to the east, south, and west of the UCC Tech Center. Located downgradient from the UCC Tech Center to the northwest are three parcels, owned by Courtland, the West Virginia Department of Transportation (“WVDOT”) and CSX Transportation, respectively. The WVDOT and CSX properties are specifically addressed in the 2012 Revised RCRA Permit and Corrective Action Report for the facility, however, the Courtland Property, which is also immediately downgradient of the UCC Tech Center, is not mentioned in that report.

In 2010, as part of a planned divestiture, UCC and Dow conveyed portions of the UCC Tech Center to other entities, reserving certain parcels, easements, and rights of way. In 2012, certain other portions of the UCC Tech Center were conveyed to a separate entity, subject also to UCC's reservation of certain parcels, easements, and rights of way.

² On or about February 6, 2001, UCC became a wholly owned subsidiary of Dow, which thereafter controlled UCC's operations and, from such date, became an operator of the UCC Facilities.

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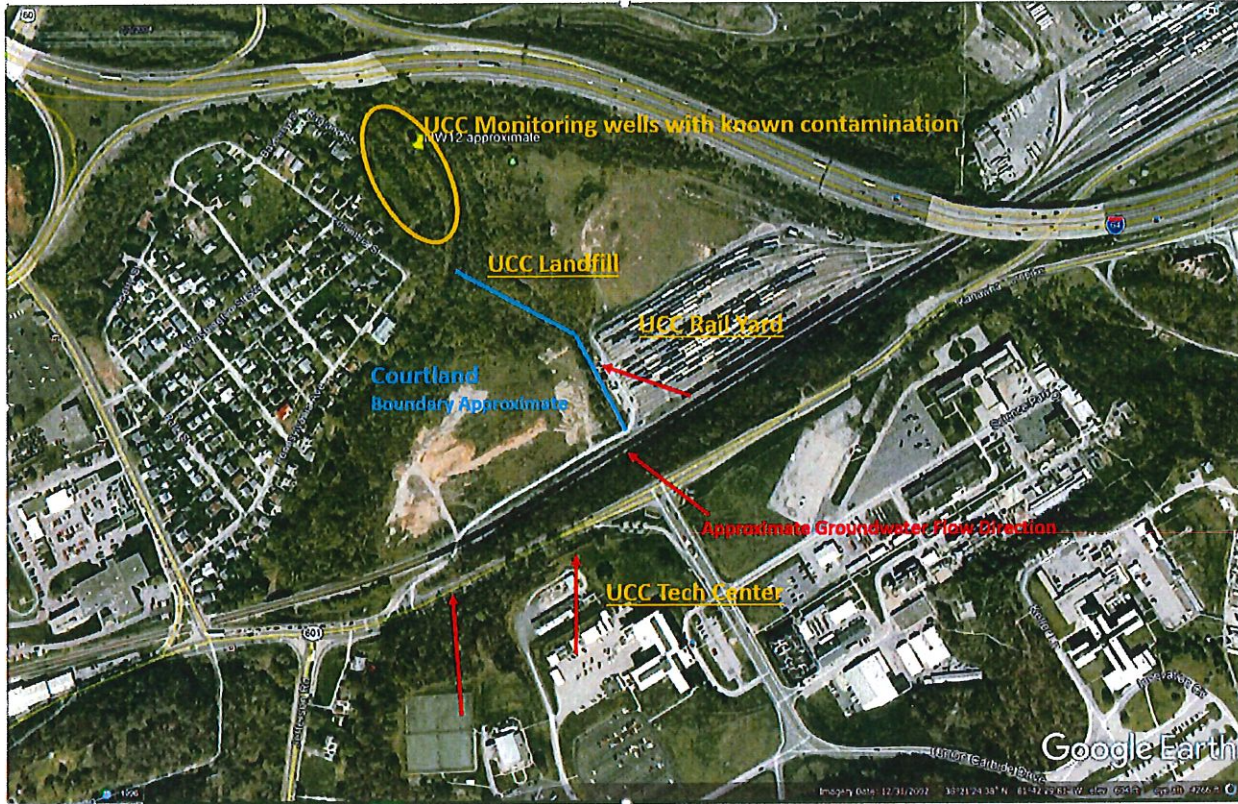


Figure 1

The remaining land at the UCC Tech Center includes three inactive landfills, the Lower Ward Landfill, Ward A Landfill, and Ward B Landfill. The three landfills were constructed primarily to receive fly ash slurry from the UCC Tech Center. The landfills also received oxide tails from the UCC South Charleston facility's propylene oxide production unit, and municipal sludge from the South Charleston publicly owned treatment works (POTW). The landfills were created by constructing upper and lower dikes across a hollow, designated as Ward Hollow. The Lower Ward Landfill is located between the upper and lower dikes, and the Ward A and B Landfills are located south of the upper dike (Figure 1). Use of the landfills was discontinued in 1973, after which the Lower Ward and Ward B Landfills were covered, and the Ward A Landfill was turned into a scenic pond.

Between 2002 and 2003, UCC modified the central drainage channel at Ward B Landfill by installing perforated high-density polyethylene piping buried under aggregate cover. The perforated piping is referred to as the central drainage line, and it discharged into Ward A Landfill until 2007, when the discharge was rerouted to Holz Impoundment and the previously uncovered aggregate was covered with soil. Holz Impoundment is a 76-acre active solid waste impoundment that is used by UCC and the City of South Charleston but is not part of the facility.

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(b) Investigations and "RCRA Corrective Action" at the UCC Tech Center:

A RCRA Facility Assessment ("RFA") was conducted by UCC in 1988 at the UCC Tech Center that identified sixty-two (62) solid waste management units ("SWMUs"). UCC later identified eight (8) additional SWMUs at the facility that were later investigated. UCC evaluated the 70 SMWUs and placed them into four priority categories: A-High Priority; B-Low Priority; C-No Further Action and D-Not a SWMU.

UCC entered into a Facility Lead agreement (Agreement) with USEPA on December 15, 1999 for conducting corrective action at the UCC Tech Center. Since entering into the Agreement, UCC has conducted multiple investigations including human and ecological risk assessments, to evaluate releases from the Tech Center.

On December 17, 2010, USEPA issued its "Final Decision and Response to Comments" ("Final Decision") with respect to the RCRA Corrective Action at the UCC Tech Center. On February 2, 2012, the WVDEP incorporated the Final Decision into a revised West Virginia Hazardous Waste Management permit for the UCC Tech Center. Long-term groundwater monitoring in accordance with the agency-approved groundwater monitoring plan ("GWMP") is a component of the Final Decision for the UCC Tech Center.

In 2001, an RCRA Facility Investigation (RFI) was conducted at the UCC Tech Center to fully investigate the extent of contamination in soil, groundwater, surface water, sediment and waste material at six Category A SWMUs. This investigation did **not** include potential contaminant migration toward the Courtland Property but did identify other areas of off-site contamination from UCC activities, specifically Ward Hollow.

In 2005, another RFI was conducted by UCC at the UCC Tech Center to fully investigate the extent of contamination in soil, groundwater, surface water, sediment and waste material at eleven Category B, C, or D SWMUs. This investigation also did **not** include potential contaminant migration toward the Courtland Property but did identify other areas of off-site contamination from UCC activities, specifically Ward Hollow.

Based on geologic and hydrogeologic investigations of the area, groundwater contamination in Ward Hollow was determined to be related to the three (3) landfills and the former brine wells at the UCC Tech Center. Contaminated groundwater is migrating from the landfills and former brine wells to the underlying weathered bedrock and then downgradient to the WVDOT property and to the CSX Transportation property. Arsenic and barium are among the most prominent constituents within the Ward Hollow groundwater plume that are above their respective EPA Maximum Contaminant Levels ("MCLs"), codified at 40 C.F.R., Part 141 and promulgated pursuant to the federal Safe Drinking Water Act ("SDWA"), 42 U.S.C. §§ 300f *et seq.*, or USEPA tap water Regional Screening Levels ("RSLs"). Consequently, UCC performed a Human Health Risk Assessment to evaluate human health risks related to exposure to contaminated groundwater downgradient of the UCC Tech Center. Results of the HHRA indicated that if the contaminated groundwater was used for drinking water it would result in unacceptable human health risks.

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Groundwater data from two monitoring wells located in the UCC Tech Center's Greenhouse Area show concentrations of volatile organic compounds (VOCs) above MCLs or adjusted USEPA tap water RSLs. The full nature and extent of this contaminated plume has yet to be adequately determined. This contaminated area is directly upgradient of the Courtland Property.

The "RCRA corrective action" prescribed for the UCC Tech Center, which does **not** include the Courtland Property, is limited to groundwater monitoring and use restrictions, through restrictive covenants that apply only the UCC Tech Center. No steps have been taken to address the off-site migration of contaminants or to otherwise mitigate the risks and impacts which the presence of such contaminants in soils and groundwater pose to human health and the environment. Indeed, nothing has been done to fully delineate the vertical and lateral extent of the contamination which is at and emanating from the UCC Tech Center, to determine potential exposure pathways, or to fully assess all risk which such contaminants pose to human health and the environment.

Moreover, with respect to their presence at the UCC Tech Center and their migration, through environmental media, from the UCC Tech Center, the substances Acetone, 2-Butanone (a.k.a. methyl ethyl ketone), Di-n-butyl phthalate, Arsenic, Barium, Cadmium, Chromium, Lead and Selenium are each a "solid waste," within the meaning of 40 C.F.R. § 261.2, in that each is a "discarded material," within the meaning of 40 C.F.R. § 261.1(a), each of which is not subject to any of the exclusions set forth in that same paragraph of § 261.1(a). Accordingly, each such substance is a "solid waste" within the meaning of 40 C.F.R. § 261.2.

(c) UCC Massey Rail Yard:

UCC owns and operates a rail yard immediately adjacent to and upgradient of the Courtland Property, herein the "Rail Yard". Both the Rail Yard and the Filmont Landfill are a part of the same nearly 31-acre parcel of land. The Rail Yard is currently used to stage/store chemical raw material and product railcars until they are required in the UCC South Charleston Plant or in the case of product shipped to the customer. There is presently no transfer of materials at Dow/UCC Massey Railway, only storage. The Rail Yard is managed by the UCC South Charleston Plant, but is not considered contiguous.

Historic aerial photography shows that the Rail Yard was in service by 1971. Dow/UCC has stated in deposition testimony that some groundwater investigations have been done in the vicinity of or on the Rail Yard but details of those investigations could not be recalled.

Historic aerial photography appears to show the land that was eventually used for the Rail Yard was used to dispose of bottom ash from UCC power plants.

Deposition testimony indicates that some investigation of groundwater has occurred at the Rail Yard but details of that investigation were not recalled.

(d) UCC Filmont Landfill:

The Filmont Landfill is a part of the same nearly 31-acre parcel also occupied by the Rail Yard. The Landfill is north of the Rail Yard, and extends to the west to the banks of Davis Creek.

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It is also immediately adjacent to the Courtland real property, generally on the north side (See Figure 1).

The presence of the Landfill was not known by Courtland until recent deposition testimony by Dow/UCC environmental technical personnel. According to this testimony, the landfill was used in the 1970's and 1980's and received waste from the UCC South Charleston chemical manufacturing facility. Testimony revealed that Dow/UCC does not know what went into the landfill other than wastes associated with the manufacture of Dynel, a fiber made from vinyl chloride and acrylonitrile. Dow/UCC also does not how the landfill was constructed but states that they do not think that it was built to RCRA Subtitles D or C standards.

Additional research reveals that in addition to unknown wastes and wastes from Dynel manufacturing, the landfill received bottom-ash from two Union Carbide South Charleston facility power plants that burned primarily coal, but also "wastes", and wastewater treatment plant grit from the UCC South Charleston influent to the South Charleston Wastewater Treatment Plant. This grit contained biphenyl, 2,6-di-tert-butyl-p-cresol, isophorone, phenyl ether and various inorganics including arsenic, chrome, lead and mercury.

Historic aerial photography reveals large piles of what is likely bottom ash at the landfill site in 1971, as well as other activities. 1984 aerials also indicate the presence of what is likely large piles of bottom ash as well as other activities at the landfill site. 1996 aerials show the site as flattened and vegetated.

Deposition testimony revealed that UCC had installed 3 monitoring wells on property owned by the City of South Charleston, across Davis Creek and downgradient of the Filmont Landfill. Contamination from the landfill was discovered in these wells some time prior to 2012, including 1,4-dioxane and "some ethers". The presence of these contaminants from this abandoned landfill was not reported to any governmental regulatory agency.

The depth of the landfill is unknown, however it does come to the very bank of Davis Creek and appears to cover part of the Davis Creek floodplain. At the edge of Davis Creek the landfill appears to be 20-30 feet high.

Freedom of Information Act requests were made to both WVDEP and USEPA with detailed descriptions of the landfill and its location. As of this date no response has been received from USEPA. WVDEP's response states: "The Hazardous Waste section has no file information on this request using the information provided."

Documents produced by UCC in litigation establish that UCC's consultant recommended an investigation of whether contamination at UCC Tech Center was connected to contamination at Filmont Landfill, though it is unknown whether UCC or Dow approved such an investigation or whether it was completed.

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(e) The Courtland Property:

Because of Courtland's concern that contamination from the UCC Tech Center had migrated or may have migrated onto the Courtland Property, as it had migrated onto neighboring properties, Courtland conducted a limited environmental investigation in August of 2017. This limited environmental investigation was conducted before the presence of the abandoned Filmont Landfill was known to Courtland. As described below, this limited environmental investigation revealed the presence of certain contaminants of concern, at elevated levels, in environmental media, at and under the Courtland Property. These contaminants of concern include 2-Butanone (a.k.a. methyl ethyl ketone), Di-n-butyl phthalate, Arsenic, Barium, Cadmium, Chromium, Lead and Selenium, each previously identified as a "solid waste," within the meaning of 40 C.F.R. § 261.2, with respect to its presence in environmental media at and emanating from the UCC Facilities.

In this investigation, three direct-push borings were completed into the subsurface for the purpose of collecting groundwater samples via temporary piezometers. The location of the three borings was in the most upgradient, southeast portion of the Courtland Property, directly downgradient of the UCC Tech Center as shown in various UCC groundwater monitoring reports. The 3 piezometers were screened at three different depths, with the deepest completed to about 50 feet below ground surface to the underlying sandstone bedrock.

Sampling of the three piezometers revealed contamination of the groundwater by both organic chemicals and toxic metals. The organic contaminants detected included Acetone, 2-Butanone (a.k.a. methyl ethyl ketone) and Di-n-butyl phthalate. These three contaminants are not present in natural groundwaters. All three of these contaminants are also present in UCC Tech Center groundwater. Acetone and Di-n-butyl phthalate have also been detected in UCC off-site monitoring wells. Acetone and 2-butanone are also present in UCC landfill leachate. As no operation historically conducted at the Courtland Property could have contributed these contaminants to the environment, the sole plausible source of these contaminants on the Courtland Property is from one of the UCC Facilities. No other source of the contaminants found at the Courtland Property reasonably exists.

- **2-Butanone** is used as a solvent. Acute (short-term) inhalation exposure to 2-Butanone in humans results in irritation to the eyes, nose, and throat. Limited information is available on the chronic (long-term) effects of 2-Butanone in humans. Chronic inhalation studies in animals have reported slight neurological, liver, kidney, and respiratory effects. Developmental effects, including decreased fetal weight and fetal malformations, have been reported in mice and rats exposed to 2-Butanone via inhalation and ingestion. Material Safety Data Sheets prepared by the manufacture of the chemical product 2-Butanone state that it is dangerous to aquatic life in high concentrations and may be dangerous if it enters water intakes. 2-Butanone is a "hazardous waste" pursuant to 40 C.F.R. § 261.3, because it is: (a) with respect to its presence in environmental media at and emanating from the UCC Facility, a discarded material and "solid waste" under within the meaning of 40 C.F.R. § 261.2; (b) not excluded from regulation as a hazardous waste under 40

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C.F.R. § 261.4(b); and (c) listed as a hazardous waste under Subpart D of 40 C.F.R., Part 261 (in particular under 40 C.F.R. § 261.33, with waste code U159) when it has been, as it has been within the groundwater at the Courtland Property, discarded or intended to be discarded.

- **Acetone** is used as a solvent and as a synthetic intermediate. The substance may have adverse effects on the central nervous system, liver, kidneys and gastrointestinal tract. The substance may also have adverse effects on the blood and bone marrow. There are limited data that indicates acetone may adversely affect the male reproductive system. MSDSs for the chemical product Acetone direct users to avoid releases of it to the environment. Acetone is a “hazardous waste” pursuant to 40 C.F.R. § 261.3, because it is: (a) with respect to its presence in environmental media at and emanating from the UCC Facility, a discarded material and “solid waste” under within the meaning of 40 C.F.R. § 261.2; (b) not excluded from regulation as a hazardous waste under 40 C.F.R. § 261.4(b); and (c) listed as a hazardous waste under Subpart D of 40 C.F.R., Part 261 (in particular, (i) under 40 C.F.R. § 261.33, with waste code U002 when it has been, as it has been with respect to the groundwater at the Courtland Property, discarded or intended to be discarded; and (ii) under 40 C.F.R. § 261.31, with waste code F003, as the acetone disposed of by UCC has been used and, as a result of contamination, can no longer serve the purpose for which it was produced, without processing.
- **Di-n-butyl phthalate (“DBP”)** is a federal Clean Water Act (“CWA”) Priority Pollutant. It is a chemical that is added to plastics. The U.S. Consumer Product Safety Commission (“CPSC”) considers DBP to be systemically toxic. Studies reviewed by CPSC provided evidence that DBP can be considered toxic to reproductive systems under the Federal Toxic Substances Control Act. The studies showed that DBP reduced fertility, mating and pregnancy rates, as well as reduced sperm concentrations in male rats. DBP may induce adverse health effects by altering hormones. DBP is very toxic to aquatic organisms. DBP is a “hazardous waste” pursuant to 40 C.F.R. § 261.3, because it is: (a) with respect to its presence in environmental media at and emanating from the UCC Facility, a discarded material and “solid waste” under within the meaning of 40 C.F.R. § 261.2; (b) not excluded from regulation as a hazardous waste under 40 C.F.R. § 261.4(b); and (c) listed as a hazardous waste under Subpart D of 40 C.F.R. Part 261 (in particular under 40 C.F.R. § 261.33(a) or (b), with waste code U069) when it has been, as it has been at the Courtland Property, discarded or intended to be discarded.

Because toxic metals can occur naturally, metal concentrations should be compared to expected background to determine whether the improper or illegal handling, storage or disposal of such metals caused or contributed to their presence in environmental media. UCC groundwater monitoring reports do not include expected background data. Additionally, UCC metals data generally report metals at dissolved concentrations, whereas generally accepted environmental risk assessment sampling protocols generally calls for a “total metals” analysis.

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Metals concentrations detected at the Courtland Property were compared to U. S. Geological Survey ("USGS") data sets from two nearby monitoring wells (KAN 0943 and KAN 0927). Additionally, a 2006 USGS report that included background groundwater data was referenced (*Ground-Water Quality in Unmined Areas and Near Reclaimed Surface Coal Mines in the Northern and Central Appalachian Coal Regions, Pennsylvania and West Virginia*. USGS Scientific Investigations Report 2006-5059). Monitoring well and piezometer sampling has revealed that concentrations of Arsenic, Barium, Cadmium, Chromium, Lead and Selenium are present at elevated concentrations in the groundwater of both the UCC Tech Center and the Courtland Property at elevated levels when compared to background metal concentrations. As no operation historically conducted at the Courtland Property could have contributed these contaminants to the environment, the sole plausible source of these contaminants on the Courtland Property is from the UCC Tech Center or other UCC Facilities. No other source reasonably exists.

- **Arsenic** is a federal CWA Priority Pollutant and Toxic Pollutant, and a RCRA toxicity characteristic contaminant (D004) under 40 C.F.R. § 261.24. Arsenic concentrations in groundwater at the UCC Tech Center exceed the SDWA MCL. Inorganic arsenic has been recognized as a human poison since ancient times and is a carcinogen. Arsenic exerts its toxicity by inactivating up to 200 enzymes, especially those involved in cellular energy pathways and DNA synthesis and repair. Acute arsenic poisoning is associated initially with nausea, vomiting, abdominal pain, and severe diarrhea. Encephalopathy and peripheral neuropathy are reported as effects of arsenic poisoning. Arsenic is a well-documented human carcinogen affecting numerous organs. Arsenic compounds cause short-term and long-term adverse effects in individual plants and animals and in populations and communities of organisms. The drinking water MCL for arsenic is 10 ug/l, which is exceeded in the groundwater both at the UCC Tech Center and on the Courtland Property.
- **Chromium** is a federal CWA Priority Pollutant and Toxic Pollutant, and a RCRA toxicity characteristic contaminant (D007) under 40 C.F.R. § 261.24. Chromium concentrations in groundwater at the UCC Tech Center exceed the SDWA MCL. Chromium presents a substantial threat to aquatic life. It destabilizes the ecosystem due to toxic impacts on biota and bioaccumulation in certain organisms. It also produces cytotoxicity and has a detrimental impact on the behavior of fish, such as hypertrophy and paraplegia at gill epithelium, uneven swimming and suspended feeding. Various research studies indicate adverse effects of chromium in fish at hematological level similar to anemia, thrombocytopenia, decrease in hemoglobin and total erythrocytes count. At bio-chemical level, a decline in glycogen, lipids and proteins was observed. The SDWA MCL for total chromium is 100 ug/l, which is exceeded in the groundwater at the Courtland Property.
- **Barium** is a RCRA toxicity characteristic contaminant (D005) under 40 C.F.R. § 261.24. Barium concentrations in groundwater at the UCC Facility exceed the SDWA MCL. In humans, toxicity resulting from exposure to barium and barium compounds is associated with hypertension and renal function. Barium

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compounds can cause changes in heart rhythm or paralysis in humans. The aquatic Reference Toxicity Value for Barium is 4 ug/L. Fish and other freshwater life can bio-accumulate Barium.

- **Cadmium** is a CWA Priority Pollutant and Toxic Pollutant, and a RCRA toxicity characteristic contaminant (D006) under 40 C.F.R. § 261.24. Cadmium concentrations in groundwater at the UCC Tech Center exceed the SDWA MCL. Cadmium is a non-essential metal with no biological function in aquatic animals. In addition to acute effects such as mortality, chronic exposure to cadmium can lead to adverse effects on growth, reproduction, immune and endocrine systems, development, and behavior in aquatic organisms. Kidney damage has long since been described to be the main problem for humans chronically exposed to cadmium, and cadmium exposure is associated with bone damage. There is some proof that cadmium exposure can cause cancer.
- **Lead** is a federal CWA Priority Pollutant and Toxic Pollutant, and a RCRA toxicity characteristic contaminant (D008) under 40 C.F.R. § 261.24. Lead concentrations in groundwater at the UCC Tech Center exceed the SDWA Action Level. Lead adversely affects algae, invertebrates, and fish. There are also limited adverse effects in amphibians, including loss of sodium, reduced learning capability, and developmental problems. Fish exposed to high levels of lead exhibit a wide range of adverse effects including muscular and neurological degeneration and destruction, growth inhibition, mortality, reproductive problems, and paralysis.
- **Selenium** is a federal CWA Priority Pollutant and Toxic Pollutant, and a RCRA toxicity characteristic contaminant (D010) under 40 C.F.R. § 261.24. Selenium concentrations in groundwater at the UCC Facility exceed the SDWA MCL. Selenium undergoes bioconcentration, bioaccumulation, and biomagnification as trophic levels increase. It can enter the food web through both sediments and surface water. Elevated levels cause growth reduction in green algae. In other aquatic organisms, the following adverse effects have been observed: loss of equilibrium and other neurological disorders, liver damage, reproductive failure, reduced growth, reduced movement rate, chromosomal aberrations, reduced hemoglobin and increased white blood cell count, and necrosis of the ovaries.

The UCC Tech Center is a RCRA Large Quantity Generator. It currently reports multiple wastes as generated at the UCC Tech Center, including Chromium (D007), Lead (D008), 2-Butanone (D035, F005) and Acetone (F003), wastes found on Courtland Property.³

In addition to those wastes found on Courtland Property, UCC has admitted that wastes from the Filmont Landfill have been found in groundwater adjacent to a residential area, across Davis Creek from the Filmont Landfill. UCC has identified one of these waste as 1,4-Dioxane.

- **1,4-Dioxane** is a synthetic industrial chemical that is completely miscible in water and is used as a stabilizer in certain chlorinated solvents, paint strippers, greases and waxes. It may leach readily from soil to groundwater, migrates

³ https://oaspub.epa.gov/enviro/rcrainfoquery_3.facility_information?pgm_sys_id=WVD060682291

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rapidly in groundwater and is relatively resistant to biodegradation in the subsurface. It is classified by EPA as “likely to be carcinogenic to humans” by all routes of exposure. Short-term exposure may cause eye, nose and throat irritation; long-term exposure may cause kidney and liver damage. It is a “hazardous waste” pursuant to 40 C.F.R. § 261.3, because it is: **(a)** with respect to its presence in environmental media at and emanating from the UCC’s Filmont Landfill, a discarded material and “solid waste” under within the meaning of 40 C.F.R. § 261.2; **(b)** not excluded from regulation as a hazardous waste under 40 C.F.R. § 261.4(b); and **(c)** listed as a hazardous waste under Subpart D of 40 C.F.R., Part 261 (in particular, under 40 C.F.R. § 261.33, with waste code U108 when it has been, as it has been at and emanating from UCC’s Filmont Landfill, discarded or intended to be discarded.

Additionally, records indicate that the UCC Filmont Landfill received waste including grit from the South Charleston Wastewater Treatment Plant (SCWWTP). USEPA documents indicate that this grit – which was in the influent from the UCC South Charleston Plant to the SCWWTP - was contaminated with – among other things – Mercury.

- **Mercury** exposure can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Some forms of mercury in the bloodstream of babies developing in the womb and young children may harm their developing nervous systems, affecting their ability to think and learn. Mercury's harmful effects on these animals include death, reduced reproduction, slower growth and development, and abnormal behavior. It is a “hazardous waste” under 40 C.F.R. § 261.3, because it is: **(a)** with respect to its presence in environmental media at and emanating from the UCC Filmont Landfill Facilities, a discarded material and “solid waste” under within the meaning of 40 C.F.R. § 261.2; **(b)** not excluded from regulation as a hazardous waste under 40 C.F.R. § 261.4(b); and **(c)** listed as a hazardous waste under Subpart D of 40 C.F.R. Part 261 (in particular, under 40 C.F.R. § 261.33, with waste code U151 when it has been, as it has been at the Filmont Landfill, discarded or intended to be discarded.

All of the aforementioned contaminants and others, coming from the UCC Facilities onto the Courtland Property or adjacent property or known to have been disposed of within environmental media adjacent to Courtland Property pose a substantial present or potential risk to human health and the environment when improperly disposed of or otherwise managed, as they have been in this matter. Accordingly, each of those substances is “Hazardous Waste” as that term is defined in RCRA § 1004(5), 42 U.S.C. § 6903(5), and it used in RCRA § 7002(a)(1)(B), 42 U.S.C. § 6972(a)(1)(B). Unlike the UCC Tech Center, no institutional restrictions exist for the use of the Courtland Property, including residential development. Groundwater is geologically connected near the sampling location on the Courtland property to an unnamed tributary of Davis Creek and to Davis Creek, a tributary of the Kanawha River, thus increasing potential exposure pathways for these contaminants. Groundwater flow from the majority of the UCC Facilities is to the northwest through WVDOT, CSX and Courtland Property. Additionally, UCC has admitted that contamination from the Filmont Landfill has been found in shallow groundwater on the other

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side of Davis Creek from the UCC Facilities. It is virtually impossible for contaminated groundwater to flow under David Creek without also contaminating Davis Creek itself. Additionally, it is highly unlikely that contamination originating at the UCC Rail Yard or the UCC Filmont Landfill would not be adversely impacting Courtland Property, as the only thing separating them is a fence and the migration of the contamination does not follow property boundaries.

IV. NOTICE OF VIOLATION

RCRA § 7002(a)(1)(A) provides, in pertinent part, as follows:

any person may commence a civil action on his own behalf . . . against any person . . . who is alleged to be in violation of any permit, standard, regulation, condition, requirement, prohibition, or order which has become effective pursuant to this chapter;

42 U.S.C. § 6972(a)(1)(A). As noted above, 1,4-Dioxane, Acetone, 2-Butanone (a.k.a. methyl ethyl ketone), and Di-n-butyl phthalate are each a “hazardous waste identified or listed by the Administrator” under Subchapter III of RCRA and a hazardous waste under Title 33, Series 20, of the West Virginia Code of State Rules. Both RCRA and the West Virginia Hazardous Waste Management Act prohibit the treatment, storage, and disposal of any hazardous waste listed or identified under RCRA Subtitle C at any facility which does not have a permit for such treatment, storage, or disposal. 42 U.S.C. § 6928 and W.V. Code § 22-18-8(a). Such statutes also prohibit the operation or closure of any facility or site for the treatment, storage, or disposal of a hazardous waste listed or identified under RCRA Subtitle C without obtaining a permit for such activity. RCRA § 1004(3), 42 U.S.C. § 6903(3), defines the term “disposal” as follows:

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

40 C.F.R. § 260.10. Accordingly, UCC and Dow’s discharge, deposit, dumping, spilling, and/or leaking of such hazardous wastes to environmental media at and under the UCC Facilities and onto adjacent property, including the Courtland Property, was, in fact and at law, the disposal of such hazardous wastes. In view of the fact that the UCC Facilities did not and do not have a permit or any form of interim status for such activities, such disposal was and is a violation of RCRA Subchapter III, including 42 U.S.C. §§ 6924 and 6928 and W.V. Code § 22-18-8(a). Such violations began in or about 1980 and continue to the date of this letter. Moreover, UCC and Dow’s operation or closure of a facility for the treatment, storage or disposal of such hazardous wastes without obtaining a permit for such activity was also a violation of Subchapter III, including 42 U.S.C. § 6928 and W.V. Code § 22-18-8(a). Such violations began in or about 1980 and continue to the date of this letter.

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The past and on-going illegal disposal of solid and hazardous waste at and emanating from the UCC Facilities, non-exclusively including the solid and hazardous waste on the Courtland property, by UCC and Dow may present an imminent and substantial endangerment to public health and the environment, and presents a single, indivisible harm to public health and the environment for which no reasonable basis of apportionment between the individual acts of disposal, the individual wastes disposed of, or the parties responsible for the acts of disposal exists. Accordingly, the responsible parties named herein are jointly and severally liable for the correction of such violation in a manner that is fully compliant with all applicable and relevant standards and is fully protective of human health and the environment.

The investigation and correction regarding these solid wastes and hazardous wastes that have been released into the environment from the UCC Facilities and which have now come to be located on the Courtland Property and other properties should be conducted in a manner consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R., Part 300, the national plan for responding to just such releases of hazardous substances into the environment that the Administrator was required by Congress in both Section 311 of the federal CWA and in Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. § 9605 (hereinafter: "National Contingency Plan" or "NCP"). The NCP provides carefully considered and detailed requirements that provide proper methods and procedures for responding to and abating releases of hazardous substance (which term specifically includes "hazardous wastes listed and identified by the Administrator" pursuant to RCRA § 3001) that have been released into the environment beyond the boundaries of a permitted facility. Such an NCP-compliant response to the endangerments that may be presented by the solid wastes and hazardous wastes that have come to be located on the Courtland Property should begin with a full Remedial Investigation of all harms which may have resulted from such contamination that complies with the requirements of 40 C.F.R. § 430.

Additionally, Dow/UCC, is in violation of RCRA 4005(a), 42 U.S.C. 6945(a), which provides as follows:

(a) Closing or upgrading of existing open dumps: •

Upon promulgation of criteria under section 6907(a)(3) of this title, any solid waste management practice or disposal of solid waste or hazardous waste which constitutes the open dumping of solid waste or hazardous waste is prohibited, except in the case of any practice or disposal of solid waste under a timetable or schedule for compliance established under this section. The prohibition contained in the preceding sentence shall be enforceable under section 6972 of this title against persons engaged in the act of open dumping.

The existing Filmont Landfill and the suspected waste material upon which the Rail Yard is built constitute "Open Dumps" of wastes. These "Open Dumps" were created at the Dow/UCC Property, and Dow/UCC is the Responsible Party, as the fee simple owner of the Subject Properties, and as the operator of the UCC Facilities, using the Properties for the continuing operation of a Solid Waste management practice that constitutes Open Dumping within the meaning of the term set forth in RCRA 4005.

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For the reasons set forth in this paragraph, this "Open Dump" falls well within the statutory definition of that term set forth in RCRA 1004(14), 42 U.S.C. 1004(14), that provides: "The term "open dump" means any facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 [i.e., 42 U.S.C. 6944] and which is not a facility for disposal of hazardous waste", and in RCRA 1004(14): "Open dump means a facility for the disposal of solid waste which does not comply with this part." As is made clear in 40 C.F.R. 257.3, "Solid waste disposal facilities or practices which violate any of the following criteria [set forth in 40 C.F.R. 257.3-1 through -8] pose a reasonable probability of adverse effects on health or the environment" and are, therefore, an "Open Dump" and not a "Sanitary Landfill" for purposes of the congressional prohibition on "any solid waste management practice or disposal of solid waste or hazardous waste which constitutes the open dumping of solid waste" set forth in RCRA 4005(a), 42 U.S.C. 6945(a). In particular, Courtland asserts on information and belief that the currently operating, unlined Filmont Landfill violates the requirement set forth in 40 C.F.R. 257.3-3(a): "For purposes of section 4004(a) of the Act, a facility shall not cause a discharge of pollutants into waters of the United States that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES) under section 402 of the Clean Water Act, as amended" and 40 C.F.R. 257.3-3(b) "For purposes of section 4004(a) of the Act, a facility shall not cause a discharge of dredged material or fill material to waters of the United States that is in violation of the requirements under section 404 of the Clean Water Act, as amended". Moreover, the recent testimony of UCC's corporate designee has established that the Filmont Landfill has contaminated an underground drinking water source beyond the applicable solid waste boundary, within the meaning of 40 C.F.R. § 257.3-4. The Filmont Landfill also violates the requirements of 40 C.F.R. 257.3-1(a) "Facilities or practices in floodplains shall not restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste, so as to pose a hazard to human life, wildlife, or land or water resources." Accordingly, the Filmont Landfill "pose[s] a reasonable probability of adverse effects on health or the environment under" 42 U.S.C. 42 U.S.C. § 6944(a) and thus does not meet the criteria for a sanitary landfill under 42 U.S.C. § 6944(a) and is a prohibited open dump.

As Dow/UCC has admitted that contamination from the landfill has been found in groundwater on the other side of Davis Creek, it is virtually impossible for that contaminant plume to not also be discharging to Davis Creek itself. Also, the Filmont Landfill has encroached upon and into the flood plain of Davis Creek and the unnamed tributary of David Creek without a permit issued under Section 404 of the Clean Water Act. Accordingly, because Dow/UCC does not have a permit for that discharge, such discharge is in apparent violation of 33 U.S.C. §§ 1311, 1342 and/or 1344.

This "Open Dump" at the Dow/UCC Property was not constructed and has not been operated, and is not operating, in a way in which the environment is protected, including the protection of groundwater. Accordingly, it is also clearly an "Open Dump" within the meaning of the express congressional mandate to the Administrator of USEPA set forth in RCRA 4004(a) that the regulations distinguishing between prohibited "Open Dumps" and authorized "Sanitary Landfills" must incorporate the premise that: "**At a minimum**, such criteria shall provide that a facility may be classified as a sanitary landfill and not an open dump only if there is no reasonable probability of adverse effects on health or the environment from disposal of solid waste at such facility."

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[Bolding emphasis added.] Groundwater and surface water associated with these "Open Dumps" will be impacted by contaminants and contribute to adverse groundwater and surface water impacts from other operations. This "Open Dump" is and has been maintained in violation of federal law. See 42 U.S.C. 6945(a).

In addition to the known on-going adverse impacts to groundwater and surface water associated with the Filmont Landfill, Dow/UCC has caused and contributed to, and is causing and contributing to, other significant adverse impacts to groundwater. Most notably, the Filmont Landfill is unlined; therefore, some of the Solid Waste and Hazardous Waste that has been since its construction discharged and continues to discharge into the surrounding groundwater system. The past disposal of Solid Wastes and Hazardous Wastes in the Filmont Landfill has resulted in and continues to result in a certainty that adverse effects on the environment will result from such disposal. Discharges from the landfill into the groundwater system at and emanating from the Filmont Landfill are: (1) not "industrial discharges which are point sources subject to regulation under Section 402 of the Federal Water Pollution Control" within the meaning of that phrase as used in RCRA § 1004(27), 42 U.S.C. § 6903(27); (2) are all unpermitted; (3) are continuing to migrate through the environment; and (4) are directly hydraulically connected to surface water, specifically Davis Creek and the un-named Tributary of Davis Creek. Unpermitted discharges of waste, Solid Waste, hazardous substances and Hazardous Wastes have occurred and are occurring at and from the Filmont Landfill that include processing, storage, handling, disposal, transport, use, or injection activities of waste, Solid Waste, or hazardous substances and Hazardous Wastes at or in the vicinity of that property.

V. NOTICE OF ENDANGERMENT

RCRA § 7002(a)(1)(B) provides, in pertinent part, as follows:

any person may commence a civil action on his own behalf, . . . against any person, . . . to the extent permitted by the eleventh amendment to the Constitution, and including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment.

Each of the following substances, and likely additional hazardous wastes and hazardous substances, which have been released to environmental media at and under the UCC Facilities, is both a "solid waste," within the meaning of 42 U.S.C. § 6903(27) and a "hazardous waste" within the meaning of 42 U.S.C. § 6903(5): 1,4-Dioxane, Acetone, 2-Butanone (a.k.a. methyl ethyl ketone), Di-n-butyl phthalate, Arsenic, Barium, Cadmium, Chromium, Lead and Selenium. UCC and Dow, as past and present operators of the UCC Facilities, are persons who have contributed or who are contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment. UCC and Dow, as past and present owners and operators of the UCC Facilities, are persons who have contributed or who are contributing to the

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past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment.

Groundwater from the UCC Facilities is hydrologically connected to the Davis Creek watershed, a tributary of the Kanawha River. The endangerments that may be presented from these environmental contaminants resulting from UCC activities include loss and degradation of biodiversity in the receiving streams, and contamination of sediments, soil, groundwater and surface water by contaminants released or discharged by these activities which generated, used, handled, transported, stored, discharged or released the waste, solid waste, toxic substances, hazardous substances, or hazardous materials which may have already harmed and will continue to harm the environment, create and continue to create a threat to human health and the environment, and unabated will continue to migrate within the environment. As noted above, many of these contaminants in the groundwater - which is connected to surface water - are easily absorbed by fish and other aquatic organisms. Small concentrations can be toxic because some contaminants bioconcentrate. Toxicity also produces adverse biological effects on an organism's survival, activity, growth, metabolism, or reproduction. Toxic Contaminants can be lethal or harm the organism without killing it directly. Adverse effects on an organism's activity, growth, metabolism, and reproduction are examples of these sublethal effects. Some of the contaminants of concern may also bio-accumulated within the plants and animals which are in direct or indirect contact with the food chain and adversely impact the health of these organisms and organisms which feed upon those organisms.

As no restrictive covenants concerning drinking water at the Courtland Property or the development, including residential development, of the Courtland Property are applicable to the Courtland Property, it is both necessary and appropriate to consider the completed groundwater pathway to a human receptor, including the drinking and showering pathway. Additionally, completed pathways exist for utility workers and on-site workers, including human receptors exposed to volatile organic contaminants - such as those found on the Courtland Property - migrating through the subsurface. As noted above, these currently identified contaminants of concern pose a significant threat to human health.

UCC, in its 2010 Corrective Measure Proposal for the Tech Center, identified completed pathways and contaminants of concern for both human health and ecological risk. This risk assessment included off site impacts, but did not acknowledge, address or quantify human health or ecological risk at the Courtland Property, known to be directly downgradient of areas of soil and groundwater contamination at the UCC Facilities. Additionally, the Rail Yard and Filmont Landfill was not included in the Risk Assessment, even though Dow/UCC knows of off-site impacts from those facilities, including the near certainty of discharges to Davis Creek. In the Proposal, UCC identified the contaminants of potential concern from their activities for ecological risk. These contaminants include (among others) the same toxic metals identified as elevated on the Courtland Property - Arsenic, Barium, Cadmium, Chromium, Lead and Selenium. Additionally, while UCC did not evaluate the drinking water pathway due to groundwater restrictions on their property, they did conclude that there is a completed pathway for construction workers exposed to groundwater, and to indoor workers exposed to contaminated vapor intrusion into buildings on the UCC Tech Center.

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While contaminants from UCC Facilities have been identified on the Courtland Property, the full nature and extent of this contamination and the endangerments to health and the environment that may be presented by it has **not** been determined, nor has a complete Human Health and Ecological Risk Assessment for impacts to the Courtland Property been performed. These unknowns justify the need for a NCP-compliant Remedial Investigation. Accordingly, UCC and Dow are jointly and severally liable for all necessary and appropriate actions to competently and fully assess and address the endangerments and harms which have or may have resulted from the past or present handling, storage, treatment, transportation, or disposal of the aforementioned solid and hazardous wastes which may present an imminent and substantial endangerment to health or the environment. Such an NCP-compliant response to the released solid and hazardous wastes and the endangerments that may be presented by them should begin with a full Remedial Investigation of all harms which may have resulted from such contamination that complies with the requirements of 40 C.F.R. § 430.

VI. COURTLAND'S CONDITIONAL INTENTION TO COMMENCE A CIVIL ACTION

Courtland demands that the responsible parties (*i.e.*, UCC and Dow): (1) forthwith take all actions required to cease and desist from allowing its property to be used for any further violations of RCRA; and (2) forthwith take all necessary and proper actions to abate the endangerments to health and the environment resulting from the above discussed conditions and violation. If UCC and the other responsible parties fail timely and appropriately to respond, and neither the United States nor the State of West Virginia timely commence or undertakes one or more of the acts or actions described in RCRA § 7002(b)(1), 42 U.S.C. § 6972(b)(1) or CERCLA § 310(d)(2), 42 U.S.C. § 9659(d)(2) respectively, Courtland intend to commence a civil action pursuant to the "Citizen Suit" provisions RCRA and CERCLA and other applicable provisions of law seeking: (1) appropriate injunctive relief compelling UCC and the other responsible parties to investigate and remediate, as determined appropriate by the Court, the conditions and violations described herein and all imminent and substantial endangerments to health and the environment that are or may be presented resulting, in whole or in any substantial part, from the conditions and violations asserted herein at and emanating from the **UCC Facilities** identified herein, specifically including the Filmont Landfill; (2) to pay to the United States the appropriate civil penalties for each violation described herein imposed by applicable federal law in the amount determined by the court; and (3) to pay to Courtland its attorneys' fees and costs of litigation incurred and to be incurred in connection with this matter, specifically including all of its expert witness fees and costs and court costs; all in amounts determined by the court.

VII. OBLIGATION TO PRESERVE EVIDENCE

Pursuant to this notice, UCC and Dow have a duty to preserve all evidence, including electronically stored information, that may be relevant in whole or in part, directly or indirectly, to (1) insurance; (2) corporate records; (3) ownership and operations of the mining operations including all leases of the property; (4) contracts relating to the companies' operations and ownership and finances; (5) employees and vendors relating to the operations and the business;

and (6) any other information that relates or potentially relates to the alleged contamination at and emanating from the property, facility, its generation and management, or general practices by the company.

To the extent that you have any questions, please contact the undersigned at your convenience.

Sincerely,


Michael O. Callaghan

cc: William Bar, Attorney General of the United States of America, U.S. Department of Justice, 950 Pennsylvania Avenue NW, Washington, DC 20530-0001

Patrick Morrissey, Attorney General of the State of West Virginia, State Capitol Complex, Bldg. 1, Room E-26, Charleston, WV 25305

Cosmo Servidio, Regional Administrator for Region III, U.S. Environmental Protection Agency, 1650 Arch Street, Philadelphia, PA 19103-2029

Scott Mandirola, Deputy Cabinet Secretary for Waste Management, West Virginia Department of Environmental Protection, 601 57th Street SE, Charleston, WV 25304

Patricia M. Bello via email as counsel for UCC and Dow